

National Integrated ICT Policy White Paper



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► POLICY REVIEW PROCESS (4 STAGES)

**FRAMING PAPER
GAZETTED**



April 2013

**GREEN PAPER
GAZETTED**



January 2014

**DISCUSSION PAPER
GAZETTED**



November 2014

WHITE PAPER



To Follow

- * UNDERPINNED BY INVITATION TO STAKEHOLDERS TO PARTICIPATE
- * WHOLE OF GOVERNMENT APPROACH



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POLICIES FOR RADICAL CHANGE (1)



Current Paradigm

- ❑ Separate frameworks have guided the sector since 1994. White Papers on Broadcasting, Telecommunications & Postal sectors, Green Paper on e-Commerce
- ❑ Rapid pace and pervasiveness of the Internet has not kept up with the rate at which all citizens have access to affordable, reliable and quality communications
- ❑ Outdated definitions of universal service and access: previously focusing on access to telephone lines; focused on supply side interventions; overlapping roles and responsibilities and unenforceable obligations

Proposed Paradigm

- ❑ World is changing from analogue to digital, previous divisions are no longer as clear in the age of convergence. Policy must confront this reality.
- ❑ Facilitate universal access and service by everyone in South Africa by requiring:
 - ✓ Open access
 - ✓ Open Internet
 - ✓ Open Spectrum
- ❑ Transform USAASA and USAF into an ICT Development Fund. NDP *“government must intervene to ensure universal access, such as the introduction of smart subsidies to help marginalised communities develop the capacity to use ICTs effectively”*.

POLICIES FOR RADICAL CHANGE (2)



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Current Paradigm

- ☐ Regulating the ICT sector in the public interest.
- ☐ Management, assignment and allocation of radio-frequency spectrum on a first come and first-serve basis
- ☐ Limited access to ICT infrastructure and services

Proposed Paradigm

- ☐ Entrench this core approach by adopting a net neutrality policy or Open Internet.
 - ✓ Internet traffic treated equally, without discrimination, restriction or interference. Equal charges regardless of user, content, site platform or mode of communication.
 - ✓ Declare broadband Internet infrastructure an essential facility
- ☐ Non-rival and non-exclusive access to radio frequency spectrum. RFS is a public good. Creation of Spectrum Management Capacity within government
- ☐ Open Access regime: Open Access Networks-mobile & fixed to reduce duplication of infrastructure, while facilitating services based competition

POLICIES FOR RADICAL CHANGE (3)



Current Paradigm

- ❑ Regulation of postal services market confined to SAPO
- ❑ Focus on E-government: use of ICTs by government to provide information and services to citizens (focus on technology)

Proposed Paradigm

- ❑ Reform of the postal services market:
 - ✓ Universal access obligations to apply to all market players.
 - ✓ Reposition postal financial services to act as pay points for various government services such as social grants; public servants salaries?
 - ✓ ICASA to impose fines of up to 1% of total revenue on any company that encroaches into the reserved market
- ❑ Focus on digital inclusion: affordable and relevant digital services, applications and content on different platforms in all South African languages – necessary for changing people's lives, makes government more effective and accountable and create opportunities for inclusive sustainable development

POLICIES FOR RADICAL CHANGE (4)



Current Paradigm

- ❑ Diffusion of ICTs responsibility of single ministry or entity

Proposed Paradigm

- ❑ To realise potential of the sector to promote inclusive growth, employment creation and poverty reduction requires whole-of-government approach.



Core approach

ICTs are a means to realise Constitutional rights, socio-economic development and NDP goals

- * Rights based approach
- * Ensure equitable access to ICTs by all
- * Address supply and demand
- * Flexibility and certainty

Reliant on partnerships and coordination across government, public, private and community sectors

- * Whole of government approach
- * multi-stakeholder approach
- * Ensure sustainable development

Objectives



Freedom of expression

Access to diverse
content, services,
applications

Universal access and
service

Enable economic
growth, employment

Facilitate ICTs for social
development to
improve quality of life

Promote innovation,
creativity and SA
content in all languages
on all platforms

Stimulate investment

Ensure accessibility to
all – incl persons with
disabilities

Uphold constitutional
standards and values

Protect privacy and a
safe communications
environment

Maximise public benefit
from public resources

Fair competition

Transparency and
accountability

Environmental
protection



Policy Context



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- Responds to the National Development Plan- a new policy framework will be needed to realise the vision of a fully connected society
- Technologies are changing the way people communicate
- The transformation and development approaches adopted in South Africa have evolved
- Extending gains made and addressing challenges experienced

Approach

- A focus on rights-based policy
- A holistic approach
- Whole of government approach
- Multi-stakeholder interventions
- Address both supply and demand
- Promoting flexibility and certainty
- Government has responsibility to ensure sustainable development



Constitutional Rights



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Overarching Vision and Principles

Vision

Everyone, regardless of who they are, their social and economic status or where they live, shall have access to high quality fixed and mobile networks and to a range of communications services

Rights and freedoms underpinning White Paper are:

- Equality
- Accessibility
- Social development
- Economic growth
- Investment
- User protection
- Investment



Constitutional Rights



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Overarching Vision and Principles

Rights and freedoms underpinning White Paper are:

- Privacy and Security
- Innovation and Competition
- Transparency and Accountability
- Environmental Protection
- Technology Neutral
- Open Access

Principles and Values

- Policy interventions must meet clearly defined public interest objectives
- Proportionate and evidence-based
- Regulatory environment: independent of political or commercial interference, least intrusive mechanisms, RIA undertaken, act fairly and ensure regulatory parity



OVERARCHING PHILOSOPHY - OPENING OPPORTUNITIES



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Vision and Broad Policy Approach : Universal Access

- Definition of universal service and access
 - Availability;
 - affordability;
 - accessibility;
 - awareness
 - ability
- Open Internet
 - Internet is a fundamental right
 - ICASA to be empowered to introduce regulations and rules to protect open internet as a platform for innovation, growth, expression whilst protecting privacy and security for access and usage of lawful content
- Quality of Service
 - ICASA to set quality of service for each category of licensee. These must be regularly reviewed and assessed as technologies change
 - Include: defined level of technical quality; time frames for installation; acceptable fault rates, how effectively complaints are handled



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Vision and Broad Policy Approach: USSASA

Dissolve

- Largely no real impact.
- Policy making functions belongs to the Department. Whilst support for regulation implementation belongs with ICASA.
- All universal service and access matters, management of USAF and definition of needy persons to be transferred to ICASA
- Difficult to pinpoint its value and the fragmentation resulting from its presence is destructive
- More effective to absorb USAASA into ICASA to form a converged agency
- Regulatory functions of USAASA and that of the Minister to be transferred to ICASA

Retain, Restructure and Refocus

- Plays an important role, should be focused on developing national regulatory/policy instruments such as testing demand side access vouchers, managing universal service obligations rather than implementing local projects
- Redefine role and mandate of ICASA within context of convergence and new USO framework
- Closer working relationship between ICASA and USAASA critical for attainment of universality to ICTs
- First review effectiveness of the Agency then develop founding legislation to articulate functions, duties, powers, overall regulatory responsibilities of the new refocussed & empowered fund

Open Access Policy

Current paradigm

- Limited access to essential infrastructure
- Infrastructure-based competition
- Exclusive access to spectrum
- High barriers to entry
- Ineffective competition

Proposed: **Open Access regime**

- Open access to all infrastructure
- More service-based competition
- Shared access to broadband spectrum
- Low barriers to entry
- Effective competition

Open Access Policy



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Policy objectives:

- ❖ **enable the creation of efficient, uniform and competitive open access networks** that will enable all players to compete on equal terms, thereby enabling multiple downstream competitors to share infrastructure and scarce resources.
- ❖ **encourage service-based competition** which will increase consumer choice (of services providers and of services), reduce costs and increase innovation

Definition of Open Access



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Policy Objective:

To provide a definition of Open Access for all licensees in the policy framework

Definition of Open Access:

“wholesale access to electronic communications network infrastructure or services that is provided on terms that are reasonable, effective, transparent and non-discriminatory; and at prices that are cost-oriented”.

Open Access Obligations



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Layered approach:

1. General Open Access obligations applicable on All networks in South Africa.
2. Obligations on Vertically Integrated entities
3. Obligations on entities with SMP and/or reliant on public resources
4. Obligations on Designated Open Access Networks

Open Access Obligations



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Policy objective:

Open Access general obligations on all significant networks in South Africa.

Intervention:

An open access network should satisfy *all* of the following general obligations:

❖ **Effective access to the infrastructure**

Flexibility in providing access to the network, suitable QoS, unbundled services, etc.

❖ **Transparency**

Transparency in: the design of the offering, its pricing and the terms and conditions of access to the network, billing for services, etc.

❖ **Non-discrimination**

Provision of services on a non-discriminatory manner, not favor services affiliated with its company.

Open Access Obligations



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Policy objective:

To address potential anticompetitive practices (restrict and/or distort competition) by vertically integrated access providers.

Interventions: Obligations on Vertically Integrated entities as follows:

- ❖ **Accounting Separation:** requires the preparation of separate accounts for each of the different businesses operated by the same entity by identifying and allocating the costs and revenues associated with each business as well as the dealings between them.

Open Access Obligations



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Policy objective:

To address potential anticompetitive practices by entities with significant market power (dominance) and/or public funded networks

Interventions: Obligations on entities with SMP and/or reliant on public resources as follows:

❖ **Cost based pricing:** wholesale price regulation (addresses high cost of services)

Policy objective: Define SMP

❖ **network with SMP:** has significant control over the infrastructure in that market, and in some case such infrastructure cannot be duplicated; the regulator, following due process, must make the determination of SMP.

Open Access Obligations



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Policy objective:

To impose additional Obligations on Designated Open Access Networks (DOAN) so as to achieve national network and population coverage.

Interventions:

- ❖ The DOAN should satisfy *all* of the general open access obligations, and
- ❖ To the extent that the OAN is vertically integrated, it must comply with the requirements for vertically integrated entities.
- ❖ All designated OANs, by definition, will own essential infrastructure that cannot be duplicated and as such will have to offer cost-based pricing

In addition, designated OANs must comply with the following obligations:

- ❖ **Network and population coverage obligations:** aligned with national targets to achieve national broadband access.



Implementation of Open Access

Open Access regime will be implemented through:

- ❖ All networks complying with open access obligations of this policy;
- ❖ The establishment of Open Access Broadband Network (s) in the fixed market;
- ❖ The establishment of an Open Access Wireless Network, which adheres to the open access principles and is dedicated to the provision of wholesale access.

Wireless Open Access Network



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Policy objective:

To promote efficient use of spectrum through addressing: the demand-supply asymmetry of mobile broadband (high demand) spectrum, vertical integration, duplication of networks, competition challenges and high costs of mobile services.

Proposed Interventions:

- ❖ establish a single national Wholesale-only Wireless OAN
- ❖ private sector-owned and managed network (consortium)
- ❖ participants incl: current holders of ECS and ECNS licenses network vendors, infrastructure companies, private equity investors, etc.
- ❖ exclusive access to broadband spectrum
- ❖ Government incentives including access to the spectrum on reasonable terms
- ❖ No on entity to control the National Wireless Open Access Network

Fixed Open Access Network



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Policy objective:

To enable access to existing and future fixed broadband infrastructure of the dominant fixed operator on an open access basis.

Policy intervention:

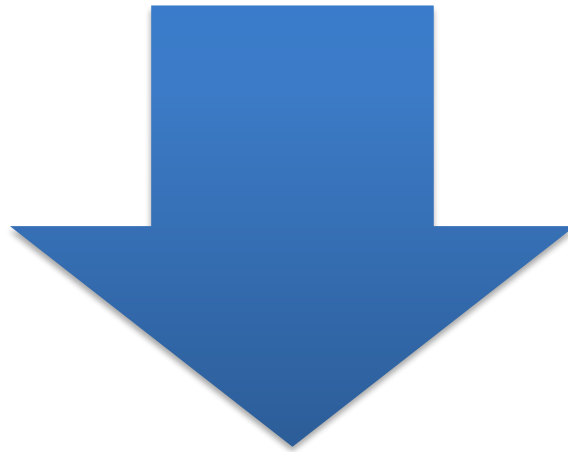
- ❖ Policy provides for open access principles on all segments of the network.
- ❖ Access to the network at cost based pricing.
- ❖ Noting that Telkom has currently separated its wholesale business from its retail business through the creation of an OpenServe company.
- ❖ ICASA will impose open access obligations on all licensees.

Spectrum Policy Challenges

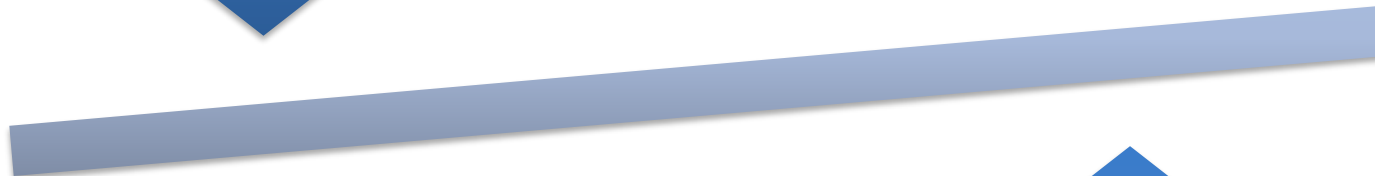


- Spectrum scarcity: Spectrum is currently a private property of a few and it is an entry barrier to a large majority of telecommunications licensees, who will never be able to have access to it
- Market structure: The current market structure forces every entity to build own mobile telecommunications infrastructure, resulting in costly and unnecessary duplications - there is no economic or technical justification of creating numerous mobile broadband networks
- The above result in lack of competition, lack of innovation, high cost of communication, and insufficient connectivity in rural areas and underserviced areas

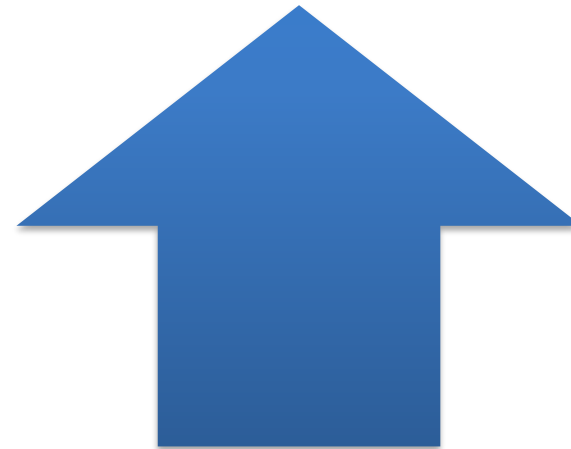
Shifting the debate



New debate: Exclusive vs
Non-Exclusive

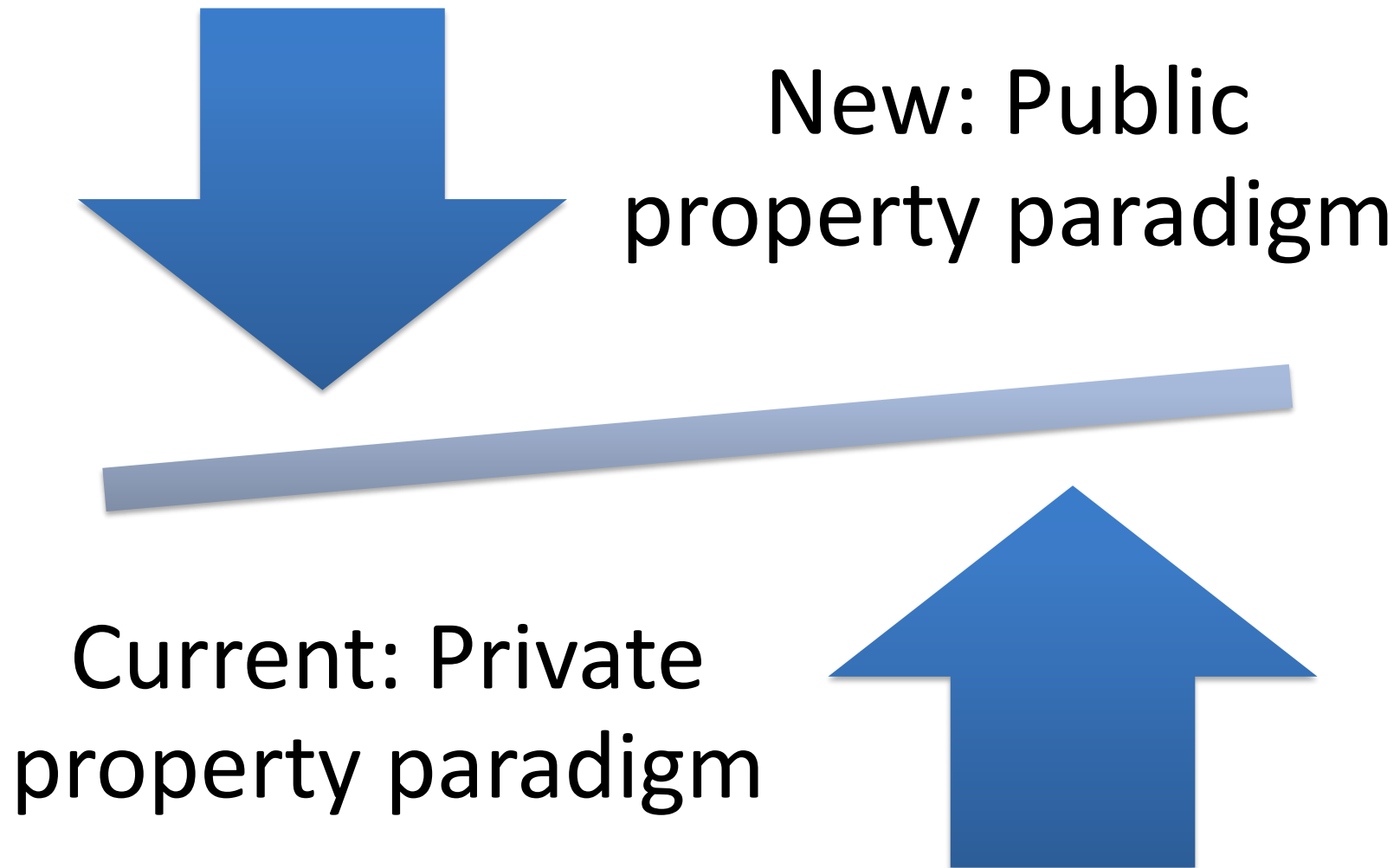


Current debate: Command-
and-Control vs Market-
based vs Commons





Ownership Paradigm Shift



Paradigm Shift – Private Good to Public Good



- Spectrum – like a High-Way – should be a **Public Good** (Non-exclusive)
- Various spectrum sharing forms and open access models are made possible by advancements in technology

Objectives of the Spectrum Policy



- to ensure the efficient use of the radio frequency spectrum resource in order to maximize the economic, cultural and social benefits that South Africans derive from its use;
- to ensure that as many users and potential users as possible can benefit from the use of the frequency spectrum resources through the introduction of a spectrum management regime which supports the sharing of infrastructure to the greatest extent possible; and
- to facilitate the assignment and allocation of the frequency spectrum resource in a manner that promotes coverage in rural areas and underserviced areas, reduces costs and in so doing supports national universal service and access objectives.

Goals



- facilitate national network deployment, including in rural areas.
- set aside spectrum for wholesale open access
- encourage private sector investment
- encourage all role players to contribute towards the effective management of spectrum
- support the attainment of national broadband targets
- support the provision of government services, emergency services, safety and security and sector-specific operations
- reduce bureaucracy and streamline processes for spectrum assignment where there is no scarcity, for example in the case of government and sector-specific spectrum
- respond to current and future business models and technological advancements



Policy Principles

- Maximization of the efficiency of spectrum used in South Africa
- Promotion of infrastructure sharing and non-exclusive utilization
- Openness and Transparency
- Non-discrimination
- Use it or lose it
- Predictability



High-Demand Spectrum

- Policy issues
 - Exclusive access of only a few to high-demand spectrum in a vertically integrated market structure. As a consequence, the market is characterized by a lack of competition, a lack of service innovation, relatively high communication costs, and insufficient connectivity in rural areas.
- Policy objective
 - To level the playing fields for competition at services level and ensure that all players are able to benefit from high demand spectrum
- Policy Interventions
 - All high-demand spectrum shall be assigned on Wholesale Open Access basis, to address scarcity of spectrum and undesirable market structure in Mobile Broadband, Terrestrial Broadcasting and Commercial Land Mobile Radio

Non-Commercial Spectrum



- Policy issues
 - Management of non-commercial spectrum is misplaced, resulting in cumbersome and bureaucratic processes and delays and inadequate support.
- Policy objective
 - To improve support and ensure best practices in management of non-commercial spectrum
- Policy Interventions
 - Sufficient public services and sector-specific spectrum shall be secured and protected and, as far as it is practically possible, be harmonized internationally and/or regionally
 - The Minister may approve sharing of spectrum for public services and sector-specific spectrum with other users where practically possible
 - Assignment and general management of public services and sector-specific spectrum shall be managed by agencies responsible for the sector, unless a different determination is made by the Minister

Spectrum Management



- Policy issues
 - Inadequate support for all spectrum management activities across diverse services
- Policy objective
 - To ensure long term planning, quality international and regional coordination, support to all economies using spectrum and to ensure centralized coordination of spectrum management
- Policy Interventions
 - Establishment of the Spectrum Management capacity

Spectrum Pricing



- Spectrum pricing shall be based on cost recovery model where there is no case for providing incentives or dissuading inefficiency or anti-competitive behaviour
- In spectrum pricing a distinction may be made between commercial and non-commercial users
- License fees will, in general, reflect the opportunity cost of spectrum access, in addition to the costs of spectrum management
- Other spectrum pricing frameworks, approved by the Minister, may be used for providing incentives or dissuading inefficiency or anti-competitive behavior

Spectrum Sharing



- Spectrum sharing is encouraged either on a primary or secondary basis while taking into account spectrum efficiency and operational requirements of services.
- Where appropriate, the collective use of spectrum and the shared use of spectrum is encouraged.

Unused and Unassigned Spectrum



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- Assigned spectrum shall not remain unused for a period more than a year, unless a different determination is approved.
- All unused spectrum shall be returned to relevant regulatory or sector-specific agencies for immediate re-assignment;
- No spectrum shall remain unassigned for more than a year unless it is determined that there is no demand for it; and
- All bands that are found to be commercially infeasible, unused or underutilized should be opened for research and development and innovation within a reasonably light-touch regulatory regime, until such time that they are deemed commercially viable;

Universal Access



- This spectrum policy and the associated licensing and management approaches are designed to meet short, medium and long term targets for the sector and to meet the needs of consumers in all areas of the country, including rural and remote areas.
- The open access approach is fundamentally geared at addressing the universal service and access gaps in the country through extending coverage, reducing duplication and reducing deployment costs. In so doing, it creates a competitive market for ICT services by promoting service based competition – the associated benefits of competition i.e. lower prices, higher quality and greater innovation will follow, for the benefit of consumers.

